

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
31 March 2005 (31.03.2005)

PCT

(10) International Publication Number  
**WO 2005/027615 A1**

(51) International Patent Classification<sup>7</sup>: **A01B 49/06**,  
7/00, 15/16, 15/18, 35/28, A01C 5/06, 5/08, 7/06

(21) International Application Number:  
PCT/AU2004/001276

(22) International Filing Date:  
20 September 2004 (20.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003905117 19 September 2003 (19.09.2003) AU

(71) Applicant and

(72) Inventor: GREGOR, David [AU/AU]; 67 Stinson St,  
Coolamon, New South Wales 2701 (AU).

(74) Agent: LESICAR PERRIN; 49 Wright Street, Adelaide,  
SA 5000 (AU).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

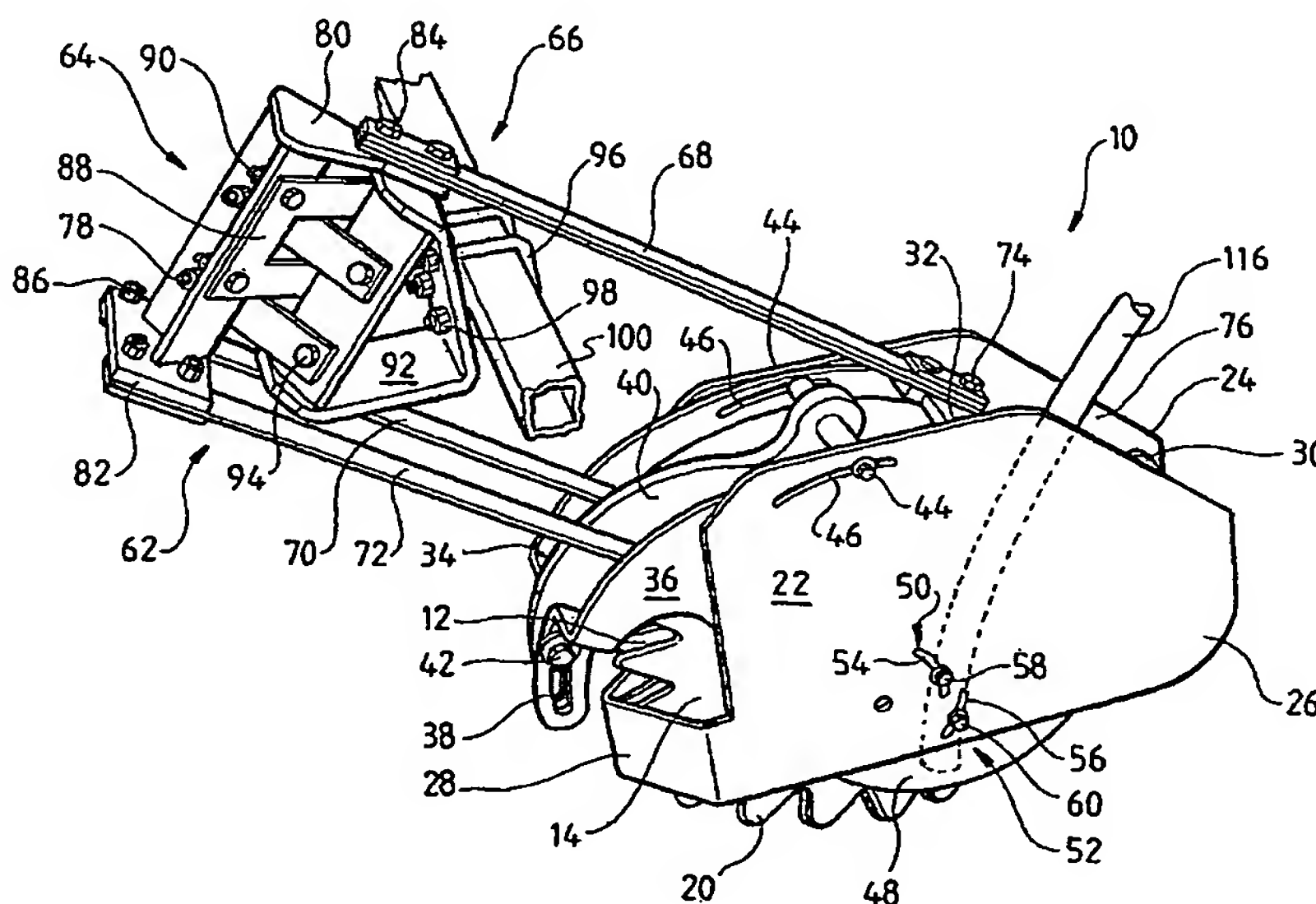
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: AN APPARATUS AND METHOD FOR FURROW OPENING USING A DISC



(57) Abstract: There is proposed a novel furrow opening apparatus (10) that includes toothed discs (12 and 14) that are able to penetrate the soil thereby creating a furrow (114). The teeth (20) of the apparatus (10) are configured to prevent hair pinning of plant material within the furrow (114). The edges of the teeth (20) slice any plant material as teeth (20) penetrate the soil. Uncut straw is wedged between the teeth (20) and broken by tension as the discs (12 and 14) diverge and any uncut straw is removed from the furrow (114) by teeth (20). Any soil and plant material that adheres to the teeth (20) is cleared by a scraper (48) and deposited back on the soil surface. The apparatus (10) may further include a seeding device (142) that is configured to follow the toothed discs (12 and 14) and create a seeding furrow (166).

WO 2005/027615 A1